POWERLINE PULSE POSITION MODULATED

COMMUNICATION APPARATUS AND METHOD

Abstract of the Disclosure

A transmitting controller is connected to a powerline and on command places a reference signal and a series of signal pulses in the powerline at a series of signal timing positions related to zero voltage crossing points so that the signals pulses are substantially in the powerline temporal quiet zone. The receiving controller is connected to the powerline and has a filter circuit therein which filters away the powerline AC signal and noise to leave the reference and signal pulses. The signal pulses are compared to the position of starting reference pulses to determine in which signal timing position the pulses have occurred. Digital data is communicated over the powerline in accordance with the nature placement of the data pulses related to the reference pulse positions. The timing zone for transmission and signals is preferably about 500 to about 1000 microseconds away from zero voltage crossing.

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